

In the United States Patent and Trademark Office

Application No.: Not yet assigned)	Filing Date: <u>7-11-03</u>
Title: TURBOCHARGER COMPRESSOR)	
WITH NON-AXISYMMETRIC DESWIRL)	
VANES)	
Applicant(s): Vrbas et.al.)	Attorney Docket No.: H0004851
Examiner: Not yet assigned)	Art Unit: Not yet assigned

Petition to Make Special Under 37 C.F.R. 1.102(c)

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Commissioner,

This petition is filed pursuant to 37 C.F.R. 1.102(c) concurrently with the above referenced patent application as an invention that will materially enhance the quality of the environment and materially contribute to the conservation of energy resources.

The present invention is directed to use in engine boosting systems such as turbochargers. For diesel engines, turbochargers are essential for fuel economy and low emissions. Turbocharged diesel engines are about 20-30% better in fuel economy and 50-80% cleaner in particulate emissions than non-turbocharger diesel engines. NOx emissions in turbocharged engines are reduced 50-80% through the use of charge air cooling and exhaust gas recirculation systems.


Certification under 37 C.F.R. §1.10
This correspondence is being filed by Express mail addressed to
Commissioner for Patents, Washington, D.C. 20231
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By: Terr i Calderon

Similarly for gasoline engines, turbochargers enable engine downsizing and improve fuel economy by 10%. Turbochargers supply more air and better control that air supply than non-turbocharged engines. A controlled supply of air enables the shaping of the torque curve and makes the engine supply the torque of a large engine with the fuel economy of a small engine. Design improvements in this field, such as an improvement comprising a non-axisymmetric deswirl vane ring for a two-stage radial compressor, can improve the efficiency of the engine boosting systems and thus contribute to further increases in the emissions reduction and fuel conservation enhancements.

For these reasons, applicant respectfully petitions that this application be made special for advancement of examination.

Respectfully submitted,



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